Docket No.: 7466 US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Christian Schoenfeld

Application No.: 10/693,423

Filed: October 24, 2003

Art Unit: 2454

For: ADAPTING A USER INTERFACE ON A DISPLAY DEVICE OF A PROTOCOL TESTER

Examiner: Vu, Viet Duy

REPLY BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In connection with the appeal of the Examiner's final rejection of the above-identified application, Appellant submits the following comments in response to the Examiner's Answer dated September 18, 2009.

A. Claim elements at issue in Appeal

Claims 1, 2, 4 - 10, and 12 - 21 are pending in the application and have been finally rejected as unpatentable under 35 U.S.C. § 103(a) as being obvious based on U.S. Patent Publication No. 2003/0225876 to Oliver, et al (hereinafter "Oliver").

The claims on appeal are claims 1, 2, 4 - 10, 12 - 16, 20 and 21. Independent claim 1 was previously amended to incorporate the elements of claims 3 and 11, which have been canceled. (Amendment dated August 21, 2008). Claims 2, 4-10, and 12-16 depend from independent claim 1. Claims 20-21 depend from independent claim 17. Should claim 20 or claim 21 be found allowable, Appellant will re-write those claims in independent form.

In view of Appellant's and the Examiner's remarks in the filings beginning with the Final Office Action dated October 24, 2008, it appears that the dispute over the current

rejection is focused on the following claim elements:

In independent Claim 1:

> modifying the visual network plan on the display device in comparison to a basic network plan according to which hardware and/or software exists in the protocol tester;
>
> wherein the text file only defines the position and connections of elements of the visual network plan while an interpreter marks the elements for which a selection exists and/or which may be used for the configuration of the telecommunication measurement task according to the hardware and/or software of the protocol tester.

In dependent claim 20:

> identifying one or more software application stored on the measurement device.

In dependent claim 21:

> identifying one or more hardware components installed on the measurement device.

In particular, Appellant submits that the Oliver reference does not teach or suggest modifying or marking a visual network plan according to the hardware or software on a protocol tester and does not identify software or hardware on a measuring device.

B. Differences between the Oliver reference and the pending claims

1. Modifying the visual network plan

Claim 1 recites:

> modifying the visual network plan on the display device in comparison to a basic network plan according to which hardware and/or software exists in the protocol tester;

The Examiner has cited paragraphs [0028]-[0029] and [0054]-[0055] in Oliver as disclosing this element. (Examiner's Answer at 4). These paragraphs are copied below.

> **[0028]** In step 160 [of FIG. 1], the performance monitor displays the network. Network elements within the network may be depicted as smart icons with interconnections to other smart icons. The smart icons may be partially or entirely colored according to a performance metric of interest. For example, the network may be rendered based on the network map.

Then, the user may select a performance metric for display. The performance monitor will then color the smart icon for each network element with the appropriate color based on the level of performance for the selected performance metric for that network element. Thus, the user will be shown a graphic depiction of the network with color highlighting the performance of the overall network. The performance monitor will update with color associated with the smart icons representing the network elements in real time as the performance metrics are updated periodically over the published message bus.

[0029] In addition, the user may show the same network map using different performance metrics to color the smart icons representing the network elements one at a time. Alternatively, the user may "drill" down on parts of the network to see more specific information. When the network map is hierarchical, the performance map may display subsections of the network that are selected. Each subsection has its own "view" which provides more detail about that part of the network. When this is done, the smart icons in the lower level view will also be colored according to the color scheme of the selected performance metric.

[0054] FIG. 8 depicts a method of monitoring the performance of the network according to an embodiment of the present invention. Referring to FIG. 8, in step 800, the performance monitor reads and displays the network view chosen by the user. In step 805, the performance monitor reads the performance queue and in step 810 stores in a buffer performance metric information for the network. In step 815, the performance monitor determines which metric to display based on input from the user or other criteria. The user input may be provided through a menuing structure which displays available metrics for the user to choose. Alternatively, the polling monitor may cycle through the performance metrics one at a time or may be set to a default value for a particular network view.

[0055] In step 820, the performance monitor displays a color as part of an icon associated with a hierarchical object depicted in the network view. The hierarchical object may be a network element, link or a subnet or network or network elements. When the object is a network element or link, the color may be selected based on the selected performance metric for that network element. When the object is a subnet or hierarchical depiction of multiple network elements or interfaces, the color may be chosen to represent the worst case element or interface within the object. Any other convenient coloring scheme is contemplated, however, for hierarchical objects including averaging the performance metric data for network elements or interfaces within the object or depicting the best performing element or interface. Combinations of different performance metrics are also contemplated to determine the coloring.

In view of this disclosure, Oliver teaches displaying network elements as smart icons.

Those icons may be colored based upon the network elements' performance. The user may select the performance metric to be monitored for the network elements. However, claim 1 requires "modifying the visual network plan . . . according to which hardware and/or software exists in the protocol tester."

Oliver does not determine, identify or display what hardware or software is on the network elements or on a protocol tester. Moreover, Oliver does not modify a network display (or visual network plan) based upon the hardware or software on the network elements or on a protocol tester. Instead, in Oliver, the network display is modified by changing colors based only upon the performance of the network elements. Oliver does not even change the colors of the network display based upon the performance of the protocol tester. The function and operation of Oliver's performance monitor itself has no effect on the network display.

2. The interpreter element

Claim 1 further recites:

> an interpreter marks the elements for which a selection exists and/or which may be used for the configuration of the telecommunication measurement task according to the hardware and/or software of the protocol tester.

The Examiner has cited paragraphs [0054]-[0056] in Oliver as disclosing this element. (Examiner's Answer at 4). The Examiner further stated that in Oliver "an interpreter (performance monitor interface) is used to mark/select elements and their associated performance metrics." Paragraphs [0054]-[0056] are copied below.

> **[0054]** FIG. 8 depicts a method of monitoring the performance of the network according to an embodiment of the present invention. Referring to FIG. 8, in step 800, the performance monitor reads and displays the network view chosen by the user. In step 805, the performance monitor reads the performance queue and in step 810 stores in a buffer performance metric information for the network. In step 815, the performance monitor determines which metric to display based on input from the user or other criteria. The user input may be provided through a menuing structure which displays available metrics for the user to choose. Alternatively, the polling monitor may cycle through the performance metrics one at a time or may be set to a default value for a particular network view.

> **[0055]** In step 820, the performance monitor displays a color as part of an icon associated with a hierarchical object depicted in the network view. The hierarchical object may be a network element, link or a subnet or network or network elements. When the object is a network element or link, the color may be selected based on the selected performance metric for that network element. When the object is a subnet or hierarchical depiction of multiple network elements or interfaces, the color may be chosen to represent the worst case element or interface within the object. Any other convenient coloring scheme is contemplated, however, for hierarchical objects including averaging the performance metric data for network elements or interfaces within the object or depicting the best performing element or interface. Combinations of different performance metrics are also contemplated to determine the coloring.
>
> **[0056]** In step 825, the performance monitor may initiate actions or events when any performance metric exceeds a predetermined threshold.

This is similar to the disclosure cited above. The Oliver reference teaches displaying network elements as icons that may be colored based upon the network elements' performance. The user may select the performance metric to be monitored for the network elements. However, claim 1 requires that the elements be marked "according to the hardware and/or software of the protocol tester."

As shown by a reading of the cited paragraphs, the Oliver reference fails to teach or suggest performing any action - including marking network elements - according to the hardware or software of the protocol tester. In Oliver the hardware and software on the performance monitor and the polling agent is irrelevant to the network display. Instead, only the performance of the network elements (which are not the claimed protocol tester) determines how the network will be colored on the display.

3. The measurement device elements

Claim 20 recites:

> identifying one or more software application stored on the measurement device.

Claim 21 recites:

> identifying one or more hardware components installed on the measurement device.

The Examiner cited paragraphs [0031] and [0033] in Oliver as disclosing these

elements. (Examiner's Answer at 5). The Examiner further stated that

> Oliver teaches defining and configuring software components (e.g., polling agents) and hardware components (e.g., master database) to implement the monitoring system (see par. [31], [33]). It would have been obvious to one skilled in the art that such hardware and software components must have been properly identified (i.e., by identifiers, addresses, etc.,) by the monitoring system.

Paragraphs [0031]-[0033] are copied below.

> **[0031]** The monitoring system 205 may be deployed as a program running on a single computer system. Alternatively, the monitoring system may be deployed as a program running on one or more distributed servers coupled together over a network. The number of polling agents 220 that are deployed may depend on the number of network elements being monitored and the performance of the network. For example, Gigabit Ethernet networks may call for more polling agents per network element than lower frequency networks such as 10 and 100 Megabit per second networks. In general, the number of polling agents is determined to permit each polling agent to complete a polling or monitoring cycle in less time than that required by a polling or monitoring cycle of the network elements or monitors being polled.

> **[0033]** The controller 200 is coupled to the master database 300. The master database 300 is a relational database that stores configuration information used to describe the network and all of the elements within it that are to be monitored. An illustrative view of the master database 300 is shown in FIG. 3. Referring to FIG. 3, the master database includes configuration tables 310 to 360 that describe the network and configure the system. The configuration tables include the network table 310, the network nodes table 320, network interfaces table 330, the network services table 340, the network metrics table 350 and the network views table 360. The tables may be considered individual databases or portions of a database and may be consolidated into a single master database or distributed among one or more control databases.

Paragraph [0031] teaches how to select the number of polling agents. Specifically, the number of polling agents should be selected based upon the monitoring cycle of the network elements. Oliver does not teach or suggest selecting polling agents based upon the software applications or hardware components of the polling agents themselves.

Paragraph [0033] teaches that a master database is used to store configuration information to describe the network and its elements. Oliver does not teach or suggest storing information related to the software applications or hardware components of the

polling agents themselves.

The Examiner's remarks appear to equate the claimed software applications (which he labels as "software components") to the polling agents and the hardware components to the master database. (Examiner's Answer at 5). However, claims 20 and 21 require that the software application or hardware components be stored or installed, respectively, on the "measurement device." The Examiner has previously identified the performance monitor (215) as the claimed "measurement device." The Oliver disclosure makes it clear that the polling agents (225) and master database (300) are completely separate and apart from the performance monitor (215). (*See,* FIG. 2). Therefore, even if Oliver taught using existence of the polling agents or the master database to identify a measurement task (which it does not do), the polling agents and master database are not part of the performance monitor or measurement device as required in claims 20 and 21.

C. Conclusion

The Oliver reference fails to teach or suggest "modifying the visual network plan," "an interpreter," "identifying one or more software application," or "identifying one or more hardware components." Therefore, the pending claims are patentable over the Oliver application and should be passed to issuance.

For all the reasons discussed above, the rejections of claims 1, 2, 4 - 10, 12 - 16, 20 and 21 should be reversed because the claims relate to patentable inventions that are not rendered obvious by the Oliver reference.

Respectfully submitted,

November 18, 2009
Date

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